Cymalon in the management of urinary tract symptoms

Women with urinary tract symptoms frequently present to sexually transmitted diseases (STD) clinics for assessment and treatment. Sometimes dysuria may be a component of a symptom-complex suggestive of genital tract infection, in which case the diagnosis may be suspected from the history or microscopy of genital tract secretions, and treatment may then be started at the first visit. In many cases, however, symptoms are often restricted to the urinary tract and such patients are often treated presumptively with antimicrobial agents while awaiting the results of urine culture.

It has long been recognised that at least 50% of such women do not have bacterial infection and logically, therefore, should not require antimicrobial therapy. Furthermore, blind prescribing has been criticised as unscientific, expensive and sometimes inappropriate if the wrong agent is selected. Patients, however, do expect therapy directed at their symptoms and therefore alkalinisation of the urine with potassium citrate mixture is widely used as a "holding exercise" until the result of urine culture is available. Since potassium citrate mixture is so unpalatable, a preparation of sodium citrate granules was developed as an over-the-counter preparation for the initial management of cystitis. We have evaluated this product, "Cymalon", in women presenting to an STD clinic with symptoms of cystitis.

Women with symptoms of cystitis who agreed to participate were evaluated. The study was approved by the ethics committee. All women had full screening tests for gonorrhoea, trichomoniasis, candidiasis and chlamydial cervical infection where appropriate and were excluded if a genital tract pathogen was identified. No attempt was made to identify chlamydial infection of the urethra although a few patients subsequently participated in a study of the urethral syndrome when samples from the urethra were tested for a number of presumptive pathogens. A mid-stream specimen of urine was cultured and the patient was prescribed a 48 hour course of Cymalon, one sachet, eight hourly. The patient was asked to attend or to telephone after 48 hours and antimicrobial therapy was prescribed if the symptoms persisted or if a significant growth ($\geqslant 10^5$ organisms/ml) was detected.

Seventy nine women were entered into the study and 64 evaluated after approximately 48 hours. When a variety of symptoms were considered, symptomatic improvement occurred in approximately 70% (range 68–75%) and deterioration in approximately 12% (range 5–18%) (table). Overall, 80% of women who answered the question, had relief of symptoms by 48 hours and the treatment was acceptable to 91·8%.

There was more variation in response to treatment amongst those 19 patients who had proven bacterial urinary tract infections with urethral pain (7 of 10) and dysuria (13 of 18) improving in more patients than frequency (9 of 17) and urgency (6 of 13). In a previous study[1] failure to respond to Cymalon was associated with a bacterial urinary tract infection, but in neither study was the response to treatment a sufficiently strong indicator of the presence of a urinary tract pathogen to obviate the need for an initial urine culture. However, if resources are limited, urine cultures could be restricted to those women who fail to respond to Cymalon and to those whose history is suggestive of a high risk of bacterial cystitis. Further evaluation of this product in a variety of settings is warranted.

Table Prevalence of various symptoms of urinary tract infection before and after treatment with Cymalon

	Number (%) stating improvement of indicated symptom after treatment with Cymalon		
	*MSU infected**	*MSU not infected*	*All patients*
Frequency	9/17 (53)	31/39 (79)	40/56 (71)
Dysuria	13/18 (72)	25/34 (74)	38/52 (73)
Urethral pain	7/10 (70)	17/24 (71)	24/34 (71)
Suprapubic pain	9/14 (64)	21/26 (81)	30/40 (75)
Nausea	2/4 (50)	12/16 (75)	14/20 (70)
Urgency	6/13 (46)	26/34 (76)	32/47 (68)
Nocturia	5/8 (63)	16/21 (76)	21/29 (72)

* $\geqslant 10^5$ organisms/ml in a mid-stream urine specimen.

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Longer incubation of an amplified enzyme immunoassay for the detection of *Chlamydia trachomatis*

The amplified monoclonal antibody enzyme immunoassay marketed by Novo Nordisk Diagnostics Ltd for the detection of *Chlamydia trachomatis* (IDEIA) has been available since 1985. Its rapidity and suitability for the processing of large numbers of specimens have led to it becoming the routine method in many laboratories. The IDEIA enzyme immunoassay procedure has seven different steps and takes approximately four hours to perform. It therefore usually takes a full working day before results are available and because of this, samples cannot usually be processed until the day after receipt. If the preliminary incubation of two hours could be increased to an overnight procedure, the test procedure could be started on the day of receipt. The remaining steps could then be completed on the following morning and earlier results obtained. To assess this we have compared the performance of an overnight versus a two hour IDEIA preliminary incubation step, using the same specimen, against a second specimen using conventional McCoy cell tissue culture.

Paired endocervical samples for tissue culture and IDEIA were collected in random order from 205 consecutive females who attended the Department of Genitourinary Medicine in Birmingham. Six were excluded from analysis because of transport delay of

Table Results of differing combinations of test procedures

	Test result combinations							Total
Culture	+	+	+	+	−	−	−	
IDEIA 2h	+	+	−	−	+	−	−	
18h	+	−	+	−	−	+	−	
Total	29	1	1*	7*†	3	3	155	199

*One culture was only positive after passage.
†On retesting with a two hour IDEIA, a positive result was obtained in one patient.

the culture specimens. The results are summarised in the table.

This study was not concerned with the relative merits of tissue culture vs. IDEIA for the detection of *Chlamydia trachomatis* but only with overnight vs. two hour incubation of the IDEIA. Further studies, with larger number of patients are needed to confirm our findings, but the present study has shown no significant difference in either sensitivity or specificity from this variation in procedure. This may be of value to those laboratories who wish to issue the results on the morning after receipt of the specimen.

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MATTERS ARISING

Syphilis in art

The recent series of articles by Dr Morton on syphilis in art[1] have been fascinating and entertaining. The quality of illustrations has been quite impressive.

I fear that an error has crept into the very last illustration, of the final article, together with the text which refers to it ("Fig 70 Maina-Miriam Munsky. Colposcopy. 1972").[1] The picture clearly shows a surgeon using a rigid endoscope inserted into the female parts. This cannot be a colposcopic examination. The possibilities are, therefore, cystoscopy; hysteroscopy; or *culdoscopy*. The lack of an irrigating fluid or other distending medium make all but the latter unlikely. A diathermy earth plate is attached to the right thigh.

Culdoscopy is seldom performed in the United Kingdom and the "knee-chest" position is generally favoured (even less aesthetic than the Lloyd-Davies position in the illustration) together with general anaesthetic. In the case illustrated the partially flexed right forearm and absence of straps to restrict the legs suggest that this procedure was performed without general anaesthesia. The culdoscope is inserted via an incision in the posterior vaginal skin. The indications are similar to those for laparoscopy, though the hazards and poorer visualisation of culdoscopy largely account for its infrequent use.[2]

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Decreased in vitro antibiotic susceptibility of *Neisseria gonorrhoeae* isolates in Hong Kong

Recently, Fung and Ng[1] reported a decreased in vitro susceptibility to spectinomycin of penicillinase producing *Neisseria gonorrhoeae* isolated in Hong Kong in 1987 compared with strains isolated 3 to 4 years earlier. However, with the speed at which travellers can be moved around the world today it is desirable for current information on changing antibiotic susceptibility patterns in areas of high tourist activity to be disseminated as quickly as possible since these population movements are undoubtedly a major contributing factor in the spread of sexually transmitted diseases.[2] Hong Kong certainly receives its fair share of international travellers with approximately 6 million tourists last year and without doubt some of these were exporters of *Neisseria gonorrhoeae* whch were acquired in Hong Kong.

Current information for the first three months of this year for penicillin susceptibility based on breakpoint methods using 0·1 and 0·5 μg/ml concentrations incorporated into agar, show 13% sensitive, 31% moderately resistant and 56% resistant. Of the resistant strains almost half are penicillinase producing leaving a substantial number that are chromosomally resistant. This level of resistance has in fact been increasing steadily over the last few years despite the fact that the antibiotic of choice for the treatment of uncomplicated infections has been either spectinomycin or ofloxacin although the latter more commonly. Regarding spectinomycin, figures for this year also show a decreased in vitro susceptibility but no greater than was found in 1987. On the other hand there would appear to be a decreased in vitro susceptibility to ofloxacin. In previous years no strains were resistant in vitro to 0·5 μg/ml but this year a number of strains have been found which are resistant at this level of incorporated antibiotic. However, at the level of dosage used (400 mg stat for males and 500 mg stat for females) there has been no definite treatment failures.

Clearly there is a continued need for monitoring of antibiotic susceptibility not only at the bench but also at the patient level and the rapid dissemination of this information through international journals.

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